

FINDING OF NO SIGNIFICANT IMPACT

HILTON CREEK CHECK DAM PROJECT

EA-06-132

Background

Anadromous fish, such as steelhead trout, utilize the Santa Ynez River and Hilton Creek to return to adequate spawning habitat. An impediment for fish passage has been identified along a cascade chute within Hilton Creek. Therefore, a check dam is needed to improve fish passage to suitable spawning habitat.

Finding of No Significant Impact

In accordance with Section 102 (2) (c) of the National Environmental Policy Act of 1969, as amended, the South-Central California Area Office of the U.S. Bureau of Reclamation (Reclamation) has found that the construction of a check dam on Hilton Creek would not significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not required for the Proposed Action and Alternatives. The project would create additional resting habitat for steelhead trout, as well as, a shorter jump distance to allow access to good to high quality rearing and spawning habitat that exists above the impediment.

This FONSI is supported by the Environmental Assessment, *Hilton Creek Check Dam*, dated October 2006, and is hereby incorporated by reference.

1. Terrestrial Resources - The construction project is confined to a small area within Hilton Creek. Land uses would not change. The Proposed Action will not interfere with current operations or obligations to deliver water to other users or fish and wildlife areas. The check dam would not have an adverse effect on unique geological features such as wetlands, wild or scenic rivers, refuges, flood plains, rivers placed on the nationwide river inventory, or prime or unique farmlands. Some overgrowth and vegetation will be removed along the existing road to allow access for one crane. The crane will be used to place rocks from onsite to facilitate fish passage. The crane will remain on the existing road during operations.
2. Surface Water Resources – Under the Proposed Action, water flows and temperatures in Hilton Creek and Santa Ynez River would not undergo long-term changes. The existing pool will be two to three feet higher (deeper) to allow a shorter jump distance for fish. An area between 2 and 3 feet around the pool would be inundated. Flows would change as the water pools and subsequently continues its journey downstream. These changes would be slight and would not lead to scouring or erosion downstream. Water quality could decrease in the terms of turbidity during construction activities.

Construction activities include the use of a crane to place rocks from onsite to facilitate fish passage. The crane would be situated on an existing road and would not enter the water. The construction activities are anticipated to take up to four weeks and occur during November and December 2006 when flows in Hilton Creek are at their lowest. This timeframe is small and temporary. Reclamation will acquire all applicable permits from the U.S. Army Corps of Engineers the State Water Resources Control Board. These permits are required prior to commencing any construction activities. Water supplies to federal contractors would not increase or decrease. Turbulent water would be reduced as a result of water falling shorter distances. This benefit would be small and would not change water quantity or quality. The Proposed Action would not result in significant impacts to surface water.

3. Groundwater Resources – The Proposed Action does not result in increases or decreases of water supplies. Percolation rates into the groundwater would occur with or without the check dam.
4. Biological Resources - The Proposed Action involves construction to improve fish passage along a cascade chute approximately 7 feet in length. The construction activities include boring holes within the waterline. A bucket with a hole in the bottom will be used to capture sediments. Water quality would not be degraded. No negative impacts to fish, plants or wildlife are anticipated. The construction activities would occur when water flows in Hilton Creek are low and steelhead fish are not migrating to spawning areas. Habitat types would not change as a result of the Proposed Action. Water flows and temperatures in Hilton Creek and Santa Ynez River would not change. The Proposed Action does not change operations and management of water and would not result in major changes to the area's biological resources. For the same reasons stated above, the Proposed Action would have beneficial impacts to federally listed threatened and endangered steelhead trout. Reclamation has determined the construction of the check dam would not likely adversely affect steelhead trout. Reclamation consulted with NMFS pursuant to the Endangered Species Act. NMFS concurred with Reclamation's determination. Reclamation determined the proposed action would have no effect on federally listed threatened and endangered species or their designated habitat under jurisdiction with the U.S. Fish and Wildlife Service (FWS). Therefore, consultation with the FWS is not required.
5. Cultural Resources - The Proposed Action involves construction of a small check dam using wooden flashboards at the downstream end of a pool below a cascade chute. Pipes will be installed (2 on each side of the stream) to serve as guide for the flashboards (which will probably be 2x12's). Eight holes will be bored within the waterline. A crane will be used to place Rocks from onsite on the downstream side of the check dam to protect it and enhance passage over it. The crane will be located on an existing roadway. Geologic and

hydrologic data, as well as physical observation, indicate that no physically identifiable cultural resources are present within the project area.

The proposed check dam site is near the boundary of the Santa Ynez River Indian Tribe Reservation. Reclamation has requested information on sites of religious or cultural significance pursuant to the regulations at 36 CFR Part 800 9(f)(2). In addition, Reclamation will consult with the State Historic Preservation Officer to request concurrence on a finding of effect contingent upon the finding provided by the Santa Ynez Tribe. These consultation efforts must be completed prior to implementation of the proposed alternative in the Environmental Assessment. No modifications to facilities eligible for the National Register of Historic Places are proposed. The Proposed Action would have no significant adverse impacts on cultural resources.

6. Indian Trust Resources - There is no change in water management, diversions, operations, or facilities that would interfere with existing Indian Trust Resources, water rights or diversions. The nearest Indian Trust Resource is 10 miles away; therefore, the Proposed Action will not have any effect on Indian Trust Resources.
7. Environmental Justice – The Proposed Action does not result in changes to water supplies. Job opportunities for low-income and disadvantaged populations would not significantly change since this project does not interfere with water deliveries to meet demands for water users and businesses.
8. Socioeconomic Resources –The Proposed Action will not affect the quality of the human environment, involve unresolved conflicts concerning alternative uses of available resources, nor have significant adverse effects on public health or safety. Hilton Creek is located in an isolated area away from public access, businesses and homes. Construction activities include the use of a crane to place rocks from onsite to facilitate fish passage. The crane would be situated on an existing road and would not enter the water. The construction activities would not result in noise nuisance or degrade air quality. The Proposed Action allows improvements for fish passage. Water supplies in Hilton Creek and the Santa Ynez River would not change. Water diversions and deliveries would not increase or decrease. Businesses and economical conditions would not change.

**ENVIRONMENTAL ASSESSMENT
HILTON CREEK CHECK DAM PROJECT
EA-06-132**

Background:

Efforts are underway to improve environmental conditions in the Santa Ynez River and Hilton Creek for the benefit of fish. An impediment for fish passage has been identified along a cascade chute within Hilton Creek. Steelhead trout are on the Threatened and Endangered Species List. Anadromous fish, such as steelhead trout, utilize the Santa Ynez River and Hilton Creek to return to adequate spawning habitat.

Past, Present and Future Actions

The mainstem of the Santa Ynez River historically dried up during the summer. During the dry months, the river flows become subsurface in some areas. The California Department of Fish and Game reports indicate that even in wet years, fish rescues were conducted to relocate young steelhead to perennial habitats.

Reclamation completed construction of the Bradbury Dam on the Santa Ynez River in 1953. Bradbury Dam forms Lake Cachuma.

A group of stakeholders formed the Santa Ynez River Technical Advisory Committee (SYRTAC) to improve environmental conditions in the Santa Ynez River. The SYRTAC, along with The Cachuma Conservation and Release Board (CCRB) and the Santa Ynez River Water Conservation District, Improvement District #1 have been working for several years on fishery issues along the Santa Ynez River. This work produced the Lower Santa Ynez River Fish Management Plan. The plan provided several recommendations: (1) creating new habitat within the lower Santa Ynez River and tributaries, (2) improving habitat conditions within the lower Santa Ynez River and tributaries, (3) improving access to important spawning and rearing habitat in the lower mainstem and its tributaries, and (4) increasing public awareness and support for beneficial actions on private land. Recommended actions will benefit steelhead and other aquatic species both directly and indirectly.

In the spring of 1997, a temporary watering system was installed on Hilton Creek by Reclamation. In this pilot project, water was delivered from Lake Cachuma to Hilton Creek via a pump-driven water delivery system. Monitoring during the summer of 1997 indicated that good water quality conditions (water temperature and dissolved oxygen) were maintained and that young-of-the-year and adults were supported in the creek. Reclamation has constructed a permanent supplemental watering system that will provide perennial flow in 2,980 feet of the creek.

1.0 PROPOSED ACTION AND ALTERNATIVES

1.1 Proposed Action

The U.S. Bureau of Reclamation (Reclamation) proposes to construct a small check dam using wooden flashboards at the downstream end of a pool below a cascade chute on Hilton Creek. (See attached compact disk, pictures and maps.) Pipes will be installed to serve as guide for the flashboards (2x12' boards). A crane will be used to place rocks from onsite on the downstream side of the check dam to protect it and enhance fish passage over it. No trenching would be required. Eight holes will be drilled in the waterline to install the pipes. The boring holes will be 2.25 inches in diameter. A bucket with a hole in the bottom would be used to capture sediment during boring. Construction is anticipated to occur between November and December for duration of 4 weeks. This would coincide with low flows in Hilton Creek and when steelhead trout are not migrating to spawning areas.

1.2 No Action Alternative

Under the No-Action Alternative, Reclamation does not construct a check dam to facilitate fish passage to higher quality spawning habitat.

2.0 PURPOSE AND NEED

2.1 Purpose of the Proposed Action

The underlying purpose is to improve fish passage in a cascade chute in Hilton Creek. The cascade chute is a passage impediment to most age classes of steelhead at most flow rates. Additional good to high quality rearing and spawning habitat exists above the impediment.

A check dam and rocks are needed to elevate the pool and to create additional resting habitat for steelhead as well as a shorter jump distance, using minimally intrusive methods.

3.0 AFFECTED ENVIRONMENT

Hilton Creek

Hilton Creek is a small tributary located immediately downstream of Bradbury Dam that has intermittent or no flows in its lower reaches during the dry seasons. The creek is isolated from public areas. Public access is very limited and unlikely. About, 2,980 feet of Hilton Creek is on Reclamation property, including the confluence with the Santa Ynez River.

The lower reach of Hilton Creek is high gradient and well confined. The channel is shaded by riparian vegetation and the walls of the incised channel. Habitat mapping in 1995 classified the stream below the chute pool as 44 percent runs, 27 percent riffle, 26 percent pool, and 3 percent cascade (Santa Ynez River Technical Advisory Committee [SYRTAC] 1997). Channel width averaged 9.3 feet and maximum pool depth averaged 3 feet. Most pools had suitable spawning habitat for their trails. High flows in the winter of 1998 altered the lower few hundred feet of the channel and moved the confluence with

the Santa Ynez River further downstream. Habitat mapping was conducted in 1998 at 2.7 to 2.8 cfs of the entire creek on Reclamation property (total 2,975 feet). The lower creek up to the chute pool (1,380 feet) was comprised of 58 percent riffle/cascade, 27 percent run, and 15 percent pool (percent of total length).

A rocky cascade and bedrock chute are potential passage impediments for migrating steelhead, located about 1,380 feet upstream from the confluence with the Santa Ynez River. The cascade is about 7 feet high. A shallow pool (the "chute pool") is at the base of the cascade. The bedrock chute immediately above it is about 100 feet long. Passage can be difficult here during high velocity flows, due to the lack of deeper water and resting sites. Measures have been completed on this cascade chute to improve fish passage. The site of the Proposed Action is separate from this site.

Habitat surveys in 1998 above the chute pool to the Reclamation property boundary (1,593 feet total) documented 61 percent riffle/cascade, 34 percent run, and 5 percent pool (SYRTAC 1999a). The reach just above the bedrock chute (about 300 feet) is consecutive run/riffle habitats with little or no canopy cover. Above this open reach to the Highway 154 culvert (about 2,400 feet total) and beyond, habitat conditions are good to excellent with excellent riparian shading and cover. About 1,200 feet of this habitat is on Reclamation property. The culvert is a complete passage barrier and is located about 1,200 feet upstream from the Reclamation property boundary and the project site of the Proposed Action.

Water Quality

Water temperatures have been monitored in the lower reach (about 250 feet upstream of the confluence), middle reach in a pool downstream of the chute pool (about 1,000 feet upstream of the confluence), and in 1998 at the Reclamation property boundary (2,980 feet upstream of the confluence). Thermograph data, coupled with observations throughout the year, indicated that water temperatures are generally suitable for overwintering steelhead. Water temperatures are lowest at the upper Reclamation property boundary, with gradual warming occurring down to the mouth of the creek. Water temperatures in the chute pool are suitable through the summer, although the pool would be physically isolated from other areas of potential habitat during a portion of the year unless flows were supplemented.

Maximum water temperatures within Hilton Creek, 250 feet upstream of the mouth, ranged from 16.4 to 26.3 degrees Celsius during the summer of 1995 (June-August). Young-of-the-year steelhead were observed to be actively feeding at temperatures up to 25.8 degrees Celsius within Hilton Creek. Young-of-the-year steelhead were observed within Hilton Creek up to the time fish rescue operations were conducted in July, 1995. Daily maximum water temperatures exceeded 25 degrees Celsius for only a few days in early August 1995. Maximum and average daily water temperatures April-October 1997, when a temporary watering system maintained summer flow at 4 cfs, never exceeded 18 degrees Celsius. In 1998, maximum water temperatures measured 250 feet upstream of the mouth exceeded 25 degrees Celsius for a few weeks in July and August, when flow was less than 1 cfs.

At a deep pool (upper Chute Pool) located approximately 1,200 feet upstream of the confluence, summer water temperatures were substantially lower than those measured further downstream. Water temperatures within this pool may be suitable through at least August, although the pool would be physically isolated from other areas of potential habitat during a portion of the year. This pool persisted into the summer during 1995, a wet year, however, it did not persist through the summer of 1996. Seasonal patterns in surface flows and the persistence of the deeper pool within Hilton Creek varies from one year to the next depending upon precipitation and runoff within the watershed.

Dissolved oxygen concentrations are suitable for rainbow trout/steelhead (>5 mg/l). Channel disturbance and water quality problems appear minimal. Hilton Creek maintains good clarity even after several days of rain. (*Biological Assessment for the Cachuma Project Operations and the Lower Santa Ynez River*, Reclamation, April 1999).

Hilton Creek represents one of the best opportunities for restoring steelhead/rainbow trout in the Santa Ynez watershed. Efforts have been underway to restore flows and spawning habitat in Hilton Creek for the benefit of fish, specifically steelhead trout.

The SYRTAC studies have documented the migration of adult steelhead/rainbow trout into Hilton Creek, spawning activity, and successful reproduction (as evidenced by the production of juvenile steelhead/rainbow trout within the creek).

In the spring of 1997, a temporary watering system was installed on Hilton Creek by Reclamation. In this pilot project, water was delivered from Lake Cachuma to Hilton Creek via a pump-driven water delivery system. Monitoring during the summer of 1997 indicated that good water quality conditions (water temperature and dissolved oxygen) were maintained and that young-of-the-year and adults were supported in the creek.

Reclamation has constructed a permanent supplemental watering system that will provide perennial flow in 2,980 feet of the creek, 1,800 feet of which is above the rocky cascade. The system has two release points in the creek, one at the bedrock chute (directly upstream of the passage impediment), and the other further upstream at the property boundary.

The objective of the fish passage project is to improve fish passage through an existing migration barrier so that the steelhead can utilize upstream spawning and rearing habitat. The migration barrier is located approximately 1,380 feet upstream of the confluence of Hilton Creek and the Santa Ynez River, and consists of a steep 6-foot cascade and a 140-foot long confined bedrock chute situated immediately upstream of the cascade. Adult steelhead have been observed in the plunge pool below the cascade but never upstream. Since it is not known whether the barrier to migration is due to the height of the cascade or the high flow velocity in the bedrock chute, this project concentrates on modifying the hydrologic conditions at both of these barriers. Additionally, the project focuses only on improving passage upstream of the plunge pool since adult steelhead have been observed in the pool. However, this decision to focus available resources on the stream reach

above the plunge pool does not omit the possibility that the area below this pool is a barrier to migration at certain flows. The migration barrier (cascade chute) discussed above, is separate from the Proposed Action.

Pumps and pipelines have been constructed from Bradbury Dam to Hilton Creek to restore flows. During the monitoring for success phase, a cascade chute located about 1,300 feet above the confluence of the Santa Ynez River within Hilton Creek was identified as an impediment for fish passage to high quality spawning habitat above the impediment. Enhancing passage at the cascade will more than double the amount of good quality spawning and rearing habitat available.

Santa Ynez River

The Santa Ynez River watershed, located in the central part of Santa Barbara County, California, is about 900 square miles in area. The Santa Ynez River originates in the San Rafael Mountains in the Los Padres National Forest, at an elevation of about 4,000 feet near the eastern border of Santa Barbara County. A small portion of the Santa Ynez River lies within Ventura County. The river flows westerly about 90 miles to the Pacific Ocean, passing through Jameson Lake, Gibraltar Reservoir and Lake Cachuma. The terrain on the south side of the river rises steeply to the crest of the Santa Ynez Mountains. These mountains range in elevation from about 2,000 to 4,000 feet and separate the Santa Ynez River basin from Santa Barbara and the South Coast. The north side of the basin is formed by the Porsima Hills and San Rafael Mountains, which range in elevation from 4,000 to 6,000 feet. Immediately upstream from Lake Cachuma, the river passes through a narrow trough between the mountains. Below Lake Cachuma, the river passes along the southern edge of the Santa Ynez Upland and flows past the broad part of the valley near Buellton. West of Buellton it flows through a narrow meandering stretch to the Lompoc narrows and emerges onto the broad, flat Lompoc Plain. The river flows through the Lompoc Plain for about 13 miles before it empties into the Pacific Ocean at Surf. The gradient of the Santa Ynez River ranges from 25 to 75 feet per mile in the upper watershed to a gently sloping coastal plain in the lower watershed. As a result of these gradient changes, the Santa Ynez River is characterized by both narrow channel sections on bedrock and broad alluvial floodplains more than 1,000 feet wide near Solvang and Lompoc. Near Bradbury Dam, the active channel is approximately 40 feet wide. Farther downstream, near the confluence with Alamo Pintado Creek, the active channel is more than 400 feet wide.

Historically, rainbow trout/steelhead primarily used the upper watershed (upstream of the present location of Lake Cachuma) for spawning and rearing (Shapovolov 1994a). Some tributaries downstream of Lake Cachuma also provided habitat, particularly in wet years. The mainstem river historically dried up during the summer. The California Department of Fish and Game reports indicate that even in wet years, fish rescues were conducted to relocate young steelhead to perennial habitats. Some habitats had perennial water, such as mainstem pools, and the lower portions of some of the tributaries, however, water temperatures precluded the use of these areas by steelhead. The availability of and access to year-round rearing habitat with appropriate water temperatures was probably the major limiting factor associated with historical steelhead stock in the Santa Ynez River and is

the main limiting factor today. (*Biological Assessment for the Cachuma Project Operations and the Lower Santa Ynez River, Reclamation, April 1999*).

Table 1 lists potential federally listed threatened and endangered species and their designated habitat that occur in Santa Barbara County. This list was obtained on October 30, 2006 from the US Fish and Wildlife Service office in Ventura California.

Table 1

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>CH</u>
Arroyo toad	<i>Bufo microscaphus californicus</i>	Endangered	Yes
California red-legged frog	<i>Rana aurora draytonii</i>	Threatened	Yes
California tiger salamander (Santa Barbara Co.)	<i>Ambystoma californiense</i>	Endangered	Yes
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	No
Brown pelican	<i>Pelicanus occidentalis</i>	Endangered	No
California condor	<i>Gymnogyps californianus</i>	Endangered	Yes
California least tern	<i>Sterna antillarum browni</i>	Endangered	No
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Endangered	Yes
Light-footed clapper rail	<i>Rallus longirostris levipes</i>	Endangered	No
Marbled murrelet	<i>Brachyramphus marmoratus marmoratus</i>	Threatened	No
Southwestern willow flycatcher	<i>Empidonax trallii extimus</i>	Endangered	Yes
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened	Proposed
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Candidate	No
Southern California steelhead	<i>Oncorhynchus mykiss</i>	Endangered	Proposed
Tidewater goby	<i>Eucyclogobius newberryi</i>	Endangered	No
Unarmored threespine stickleback	<i>Gasterosteus aculeatus williamsoni</i>	Endangered	No
Longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	Endangered	Yes
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Threatened	Yes
Giant kangaroo rat	<i>Dipodomys ingens</i>	Endangered	No
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Endangered	No
San Miguel Island fox	<i>Urocyon littoralis littoralis</i>	Endangered	No
Santa Catalina Island fox	<i>Urocyon littoralis catalinae</i>	Endangered	No
Santa Cruz Island fox	<i>Urocyon littoralis santacruzae</i>	Endangered	No
Santa Rosa Island fox	<i>Urocyon littoralis santarosae</i>	Endangered	No
Southern sea otter	<i>Enhydra lutris nereis</i>	Threatened	No
Beach layia	<i>Layia carnosa</i>	Endangered	No
California jewelflower	<i>Caulanthus californicus</i>	Endangered	No
California Orcutt grass	<i>Orcuttia californica</i>	Endangered	No
Contra Costa goldfields	<i>Lasthenia conjugens</i>	Endangered	Yes
Gambel's watercress	<i>Rorippa gambellii</i>	Endangered	No
Gaviota tarplant	<i>Hemizonia increscens ssp. villosa</i>	Endangered	Yes
Hoffman's rock-cress	<i>Arabis hoffmannii</i>	Endangered	No
Hoffman's slender-flowered gilia	<i>Gilia tenuiflora ssp. hoffmannii</i>	Endangered	No
Island barberry	<i>Berberis pinnata ssp. insularis</i>	Endangered	No
Island bedstraw	<i>Galium buxifolium</i>	Endangered	No

Island malacothrix	<i>Malacothrix squalida</i>	Endangered	No
Island phacelia	<i>Phacelia insularis ssp. insularis</i>	Threatened	No
Island rush-rose	<i>Helianthemum greenei</i>	Threatened	No
La Graciosa thistle	<i>Cirsium loncholepis</i>	Endangered	Yes
Lompoc Yerba Santa	<i>Eriodictyon capitatum</i>	Endangered	Yes
Parish's checkerbloom	<i>Sidalcea hickmanii ssp. parishii</i>	Candidate	No
Salt marsh bird's-beak	<i>Cordylanthus maritimus ssp. maritimus</i>	Endangered	No
San Joaquin woolley-threads	<i>Lembertia congdonii</i>	Endangered	No
Santa Barbara Island liveforever	<i>Dudleya traskiae</i>	Endangered	No
Santa Cruz Island bush-mallow	<i>Malacothamnus fasciculatis var. nesioticus</i>	Endangered	No
Santa Cruz Island dudleya	<i>Dudleya nesiotica</i>	Threatened	No
Santa Cruz Island fringe-pod	<i>Thysanocarpus conchuliferus</i>	Endangered	No
Santa Cruz Island malacothrix	<i>Malacothrix indecora</i>	Endangered	No
Santa Rosa Island manzanita	<i>Arctostaphylos confertiflora</i>	Endangered	No
Soft-leaved paintbrush	<i>Castilleja mollis</i>	Endangered	No
Blunt-nosed leopard lizard	<i>Gambelia silus</i>	Endangered	No
Island night lizard	<i>Xantusia (=Klauberina) riversiana</i>	Threatened	No

Table 2 lists the federally listed threatened and endangered species and critical habitat that could be affected by the proposed check dam project.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>CH</u>
Arroyo toad	<i>Bufo microscaphus californicus</i>	Endangered	Yes
California red-legged frog	<i>Rana aurora draytonii</i>	Threatened	Yes
California tiger salamander (Santa Barbara Co.)	<i>Ambystoma californiense</i>	Endangered	Yes
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened	No
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Endangered	Yes
Southwestern willow flycatcher	<i>Empidonax trallii extimus</i>	Endangered	Yes
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	Threatened	Proposed
Southern California steelhead	<i>Oncorhynchus mykiss</i>	Endangered	Proposed
Tidewater goby	<i>Eucyclogobius newberryi</i>	Endangered	No

Federal candidate species include the Beach Spectaclepod (*Dithyrea maritime*); La Graciosa Thistle (*Cirsium loncholepis*); Surf Thistle (*Cirsium rhotophilum*). These species occur downstream on the Santa Ynez River near the coast.

4.0 Environmental Effects

4.1 Terrestrial Resources

Proposed Action

The Proposed Action involves minor construction activities to improve fish passage within Hilton Creek. Similar to the No Action, land uses would not change. The project

would not interfere with current operations or obligations to deliver water to other users or fish and wildlife areas. Water flows in Hilton Creek and Santa Ynez River would not change. The Proposed Action would not have an adverse effect on unique geological features such as wetlands, wild or scenic rivers, refuges, flood plains, rivers placed on the nationwide river inventory, or prime or unique farmlands.

No Action

Under the No Action alternative, the check dam would not be constructed. No changes would occur to land uses, water flows, unique geological features, wetlands, wild or scenic rivers, refuges, flood plains, rivers placed on the nationwide river inventory, or prime or unique farmlands.

Cumulative Impacts

The Proposed Action would not impact terrestrial resources. Therefore, no cumulative impacts would occur to terrestrial resources.

4.2 Water Resources

Proposed Action

Under the Proposed Action, a check dam would be constructed in Hilton Creek. The construction activities would not interfere with water flows or temperatures in Hilton Creek or the Santa Ynez River. Water quality would be protected using a bucket with a hole in the bottom to capture sediment during boring. Reclamation is acquiring applicable permits from the U.S. Army Corps of Engineers the State Water Resources Control Board. Construction activities cannot commence until the permits have been acquired. Construction activities are anticipated to occur between November and December 2006 with duration of 4 weeks. Impacts to water quality would be minimal and short-term.

Water supply obligations for water users and fish and wildlife purposes would not be impeded. Diversions from Lake Cachuma would not change from past conditions. Groundwater percolation would be the same as the No Action alternative.

No Action

Under the No Action alternative, the check dam would not be constructed. Surface and ground water quantity and quality would not change.

Cumulative Impacts

The check dam, when added to other past, present and future actions, does not result in changes in surface or ground water supplies. Changes in water quality would be short term. Therefore, the action would not result in major cumulative impacts to water quality or quantity.

4.3 Biological Resources

Proposed Action

The project includes a minor construction project at a cascade chute and pool on Hilton Creek. This site is steep and rocky and does not provide access to the water in Hilton

Creek nor suitable habitat or foraging opportunities for species that exist in the vicinity. (See pictures in attached CD.) Threatened and endangered species and their designated critical habitat do not exist at this site with the exception of the steelhead trout.

Operations and water management practices to benefit downstream users, including fish and wildlife, would not change as a result of the Proposed Action. The construction activities would occur over four weeks when the flows in Hilton Creek and Santa Ynez River are low and steelhead trout are not migrating. Once the check dam is constructed, flows would be slightly slower at the site. However, downstream flows would be similar to past conditions. Scouring and erosion would not occur and habitat types would not change. Water temperatures and supplies would not change. The check dam will improve the migration of the steelhead to better spawning habitat upstream of the cascade chute. Therefore, the check dam would provide a benefit to steelhead trout. Reclamation has determined the Proposed Action would not likely adversely affect steelhead trout and would have no effect on the federally listed threatened or endangered species or their designated critical habitat. Since no other species would be affected aside from the steelhead trout, no consultations are required with the U.S. Fish and Wildlife Service. Reclamation is informally consulting with NMFS on the steelhead trout. The final EA and FONSI are contingent upon completion of this consultation.

No Action

No changes in conditions or habitats would occur under the No Action alternative. Operations and water management practices would not change. Therefore, the No Action alternative would not result in changes to biological resources or their habitats.

Cumulative Impacts

Construction activities would occur within existing facilities and occur when flows are low. The Proposed Action does not interfere with the implementation and compliance with existing Biological Opinions or operational practices to protect fish and wildlife resources. Proposed construction projects involving new facilities or new diversions of water would require further analysis and consultations under the Endangered Species Act, as appropriate.

4.4 Cultural Resources

Proposed Action

Hilton Creek is located just below Bradbury Dam and flows into the Santa Ynez River. The project site is approximately 1,800 feet upstream from the Santa Ynez River located in the Lomas de la Purification area that has not been surveyed by the U.S. Geological Survey (USGS) in the Lake Cachuma Quadrangle of the 7 ½ minute topographic Quadrangle. The project site can be pinpointed at the UTM Zone 10 Easting 776499, Northing 3831066 NAD 1983. Hilton Creek is a waterway subject to extreme flash flood events. The resulting effects of these flood events is a channelized streambed comprised of decomposing sedimentary bedrock. On the ground physically identifiable cultural resources within the streambed are unlikely to occur given these conditions.

The Proposed Action involves construction activities within Hilton Creek. Waterways are often identified as areas significant to Indian Tribes or individuals. Reclamation is consulting with the Santa Ynez Band of Chumash Mission Indians of the Santa Ynez Reservation to identify sites of religious or cultural significance in the project area pursuant to the regulations at 36 CFR Part 800.3(f)(2). The Final EA and Finding of No Significant Impacts are contingent upon the completion of these consultations. If sites of religious and cultural significance are not identified during consultation efforts Reclamation will conclude in consultation with the California State Historic Preservation Office, that the proposed action will have no effect on historic properties.

No Action

No construction activities would occur under the No Action. Therefore, the No Action alternative would have no impacts on cultural resources. .

Cumulative Impacts

The Proposed Action, when added to other projects on Hilton Creek and the Santa Ynez River, do not result in major construction or modifications to facilities. Cultural resources would not be disturbed.

4.5 Indian Trust Resources

Proposed Action

There is no change in water management, diversions, operations, or facilities that would interfere with existing Indian Trust Resources, water rights or diversions. The nearest Indian Trust Resources is along the Santa Ynez River and 10 miles from the construction site on Hilton Creek. The flows in the Santa Ynez River would not change. Therefore, the Proposed Action will not have any effect on Indian Trust Resources.

No Action

Similar to the Proposed Action, the No Action alternative would not impact Indian Trust Resources.

Cumulative Impacts

Since Indian Trust Resources do not occur within the project site, the Proposed Action would not result in cumulative impacts to properties or assets held in trust for Indians.

4.6 Environmental Justice

Proposed Action

The Proposed Action is confined to a remote area along Hilton Creek. Job opportunities and conditions for low-income and disadvantaged populations would not change.

No Action

Employment opportunities and conditions for low-income or disadvantaged populations would remain the same as the past under the No Action alternative.

Cumulative Impacts

The alternatives, when added to past, present and future actions, helps restore conditions within Hilton Creek for the benefit of fish. Steelhead trout are a protected species. Fishing opportunities for low income or disadvantaged populations would not undergo major changes. Therefore, there would be no cumulative impacts for these groups.

4.7 Socioeconomic Resources

Proposed Action

The Proposed Action will not affect the quality of the human environment, involve unresolved conflicts concerning alternative uses of available resources, nor have significant adverse effects on public health or safety. The Proposed Action site is isolated from businesses or residences. Construction activities would not require heavy machinery that would produce noise or degrade air quality. The construction activities would occur over four weeks and would not pose a danger to human safety.

No Action

No changes would occur to Socio-economical conditions if Reclamation does not construct the check dam.

Cumulative Impacts

The Proposed Action, when added to past, present and future actions, are designed to benefit fish and improve habitat. Socio-economical conditions would not increase or decrease.

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Clean Water Act

Reclamation is in the process of obtaining a 401 Permit under the Clean Water Act. In addition, Reclamation is consulting with the U.S. Army Corps of Engineers on the proposed action. Construction activities would not commence until the permits have been acquired.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires that Reclamation consult with federal and state fish and wildlife agencies on all water development projects that could affect biological resources. The construction activities are limited to improving fish passage. The Proposed Action does not involve construction activities that would result in new diversions or development of water supplies. Therefore, consultation under FWCA is not required.

Endangered Species Act (16 USC Sec. 1521 Et Seq.)

Section 7 of the Endangered Species Act requires federal agencies, in consultation with the FWS and/or NMFS, to ensure that their actions do not jeopardize the continued existence of federally listed endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species.

The Proposed Action is designed to specifically benefit steelhead trout which are federally listed under jurisdiction of NMFS. The Proposed Action would likely result in access to suitable spawning habitat for steelhead and could improve their population. Reclamation has determined the Proposed Action would not likely adversely affect steelhead trout. Therefore, Reclamation is informally consulting and has requested concurrence of this determination from NMFS.

Reclamation has determined the Proposed Action would have no effect on federally listed threatened and endangered species or their federally designated habitat under jurisdiction of the FWS. This determination is based on the discussion in Section 4.3 of this EA. Therefore, no consultation under the Endangered Species Act is required with FWS.

EO 11990 Protection of Wetlands

The Proposed Action does not result in long-term changes to wetlands. Flows in Hilton Creek and the Santa Ynez River would continue as in the past.

EO 11998 Protection of Floodplains

The Proposed Action does not result in changes to floodplains. Flows in Hilton Creek and the Santa Ynez River would continue as in the past.

References

Biological Assessment for Cachuma Operations and Lower Santa Ynez River, National Marine Fisheries Service and Reclamation, April 7, 1999

Program and Project Specific Environmental Impact Report and Environmental Impact Statement, Lower Santa Ynez River Fish Management Plan, Cachuma Operation and Maintenance Board and Reclamation, February 2004